

Claims

1. Foil-type switching element comprising

a first carrier foil and a second carrier foil arranged at a certain distance from each other by means of a spacer, said spacer comprising at least one recess defining an active area of the switching element, and

5 at least two electrodes arranged in the active area of the switching element between said first and second carrier foils in such a way that, in response to a pressure acting on the active area of the switching element, the first and second carrier foils are pressed together against the reaction force of the elastic carrier foils and an electrical contact is established between the at least two electrodes,

10 characterized in that

at least one of said first and second carrier foils comprises a multi-layered configuration with an inner supporting foil and an outer elastic activation layer for introducing a force acting on the switching element into a central region of said active area of said switching element.

15 2. Foil-type switching element according to claim 1, wherein a thickness of said activation layer is substantially larger than the distance between the first and second supporting foil.

20 3. Foil-type switching element according to claim 1 or 2, wherein both said first and said second carrier foils comprise a multi-layered configuration with an inner supporting foil and an outer elastic activation layer for introducing a force acting on the switching element into a central region of said active area of said switching element.

25 4. Foil-type switching element according to claim 3, wherein a combined thickness of the two activation layers is substantially larger than the distance between the first and second supporting foil.

5. Foil-type switching element according to any one of claims 1 to 4, wherein said outer activation layer is exclusively located in the region of said active area.
6. Foil-type switching element according to any one of claims 1 to 4, wherein
5 said outer activation layer extends substantially over the entire area of the inner supporting foil.
7. Foil-type switching element according to any one of claims 1 to 6, wherein a first electrode is arranged on an inner surface of said first carrier foil and a second electrode is arranged on an inner surface of the second carrier foil
10 in a facing relationship with said first electrode.
8. Foil-type switching element according any one of claims 1 to 6, wherein a first and a second electrode are arranged side by side on an inner surface of said first carrier foil and wherein a shunt element is arranged on an inner surface of the second carrier foil in facing relationship with said first and
15 second electrodes.
9. Foil-type switching element according to any one of the preceding claims, wherein at least one of said first and second electrode is covered by a resistive material.
10. Foil-type switching element according to claim 8, wherein said shunt
20 element comprises a resistive material.
11. Foil-type switching element according to any one of the preceding claims, wherein at least one of said first and second carrier foils further comprising an outer actuator layer, said actuator layer being arranged on the side of the activation layer, which faces away from the inner supporting foil.
- 25 12. Foil-type switching element according to any one of the preceding claims, wherein said activation layer comprises a foam material.
13. Foil-type switching element according to any one of the preceding claims, wherein said activation layer comprises a silicon gel.

- 14. Foil-type switching element according to any one of the preceding claims,
wherein said activation layer comprises a rubber like material.**
- 15. Foil-type switching element according to any one of the preceding claims,
wherein said activation layer comprises a fluid filled cushion.**